Abstract

A rotary apertured interferometric lithography (RAIL) system that includes interferometric lithography tools, a mask with a slit preferably with an arc shape, and a rotating stage is disclosed. The RAIL system could create a servo pattern of a recording-head trajectory of a hard disk drive in a master for magnetic-contact printing. The master can could be used to form arrays of sub-micron sized magnetic elements on a magnetic disk media for high-density magnetic recording applications.